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RY INSPECTION AND GRADING SERVICES

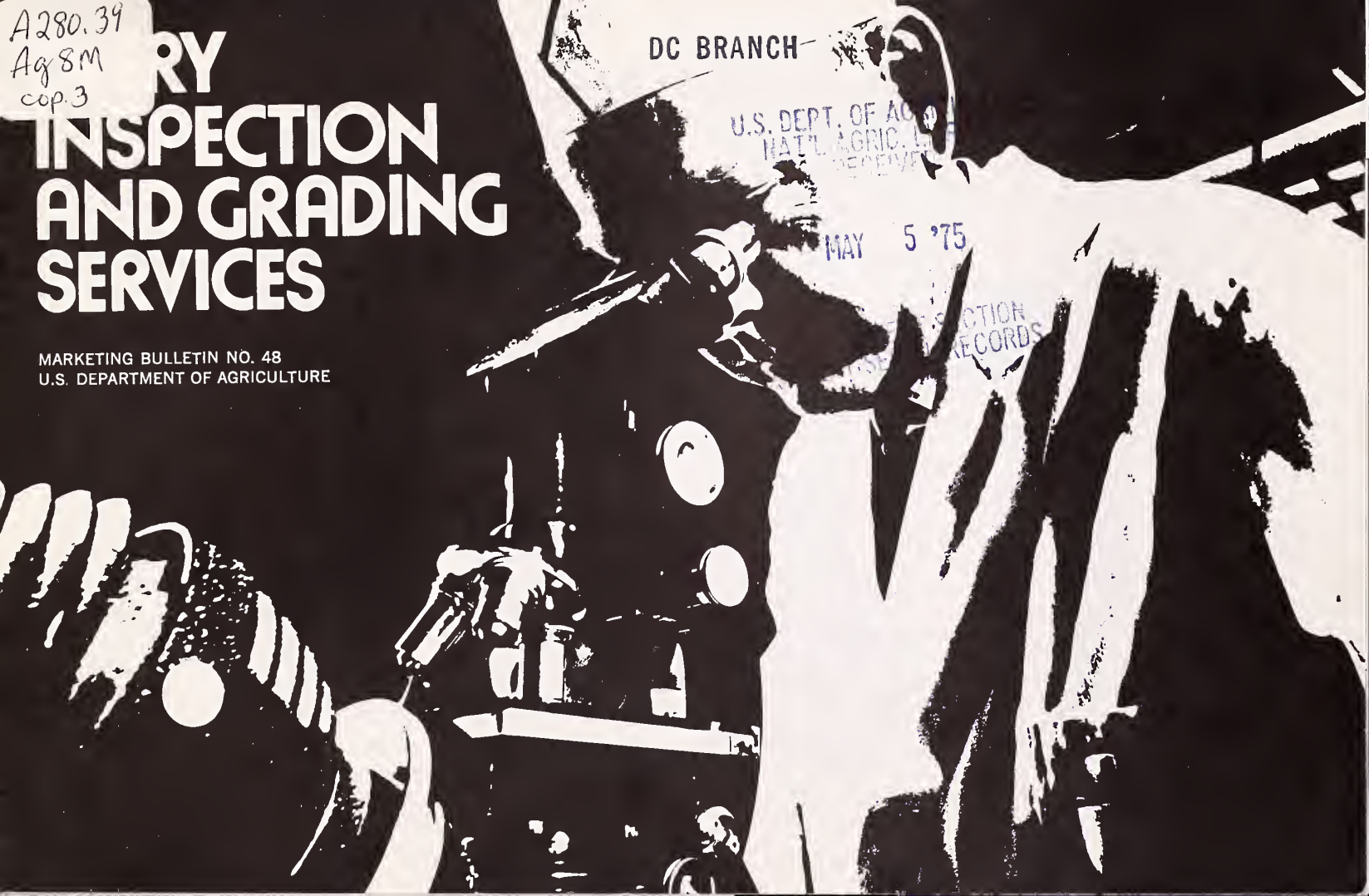
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DAIRY INSPECTION AND GRADING SERVICES

SERVICE TO THE DAIRY INDUSTRY

For processors . . . impartial evaluation of all aspects of your plant's manufacturing operation.

For sellers . . . assurance that products meet specific grade or contract requirements and have good keeping quality properties.

For buyers . . . assurance that products will have uniform high quality.

These are just some of the advantages of using the U.S. Department of Agriculture's inspection and grading services for such dairy products as butter, Cheddar cheese, and nonfat dry milk. The services are designed to help improve the quality, wholesomeness, manufacture, and distribution of dairy products. Testimony to their value is the fact that they are widely used by dairy producers, processors, wholesalers, buyers, restaurant owners, and

others involved in the production and marketing of dairy products.

The inspection and grading services are offered by the Dairy Division of USDA's Agricultural Marketing Service on a voluntary basis. Those wishing to use the services must request them, qualify for them, and pay a fee commensurate with the cost of providing them. A number of the services are operated cooperatively with State departments of agriculture or marketing.

As the basis for the inspection and grading services, the Dairy Division has developed official grade standards for dairy products. These standards provide measures of quality and are based on attributes important to consumers, such as flavor and keeping ability. They have helped to unify Federal and State grading services and may be used by dairy plants in their quality control programs. The standards provide a nationally understood lan-

guage for efficient and orderly trade.

Together, the grade standards and inspection and grading services aid in the orderly marketing of dairy products and help the dairy industry obtain a fair price for its products as well as provide consumers with the high quality products they desire.

FOUR MAJOR PROGRAMS

Plant Surveys

The basic program is the plant survey. Only after a survey shows that it has met the requirements in USDA's General Specifications for Approved Dairy Plants can a plant qualify for the other services of grading, sampling, testing and certification of its products.

This service helps to inform a plant manager about the quality of raw material, sanitation, condition of plant and equipment, and processing procedures—factors affecting the quality



Plant surroundings, raw material, effective cleaning operations are but a few of the things a dairy inspector checks in a resident grading program.

In the plant survey program, an inspector dismantles equipment and checks it for cleanliness. All plant processing equipment must be kept in satisfactory condition before any of the plant's products can be graded.



of the finished product. Therefore, a plant manager may use the service for his own benefit and to assure customers of uniform, high quality products.

Each plant survey is made by an experienced and highly trained dairy inspector. He makes detailed checks on more than 100 items and here are some of the things he looks for:

- The plant surroundings must be kept clean and orderly. No rubbish or surplus equipment can be stored near the plant and adjacent areas; these may serve as breeding grounds for insects and rodents.

- Proper lighting is required in such areas as the raw milk grading and receiving line, the manufacturing areas, and the warehouse and supply rooms. Effective cleaning operations require sufficient lighting, which is checked with a light meter.

- Plant facilities should be soundly constructed and must be kept in good repair. All outside wall openings must be properly protected to prevent the entrance of rodents and insects.

- The incoming raw product must

be regularly graded as it comes into the plant. The inspector observes the product being examined and verifies that adequate grading is performed.

- Milk wholesomeness is evaluated by means of the direct microscopic clump count. Samples of the plant's commingled milk are selected by the inspector for use in preparing microscopic slides. The slides are sent to the Dairy Division laboratory for analysis.

- All processing equipment must be kept sanitary and in satisfactory condition. The inspector dismantles the equipment and checks it for cleanliness.

- The packaging techniques used in filling product containers are checked to assure that sanitary procedures are followed. The containers must provide maximum protection for the product.

- The plant must have a laboratory testing program to assure that adequate control is maintained for production of high quality finished products. The inspector checks the processing control records.

Each survey is also tailored to the kind of plant—such as those manufac-

turing and processing cheese, butter, or nonfat dry milk. For example, in the manufacturing of dry milk, the source of air supply for the drying, conveying, or cooling of the milk powder must be free from objectionable odors, smoke, extraneous matter—it must be filtered before coming into contact with the product. There is also a salmonella surveillance program for plants manufacturing dry milk and other dried dairy products.

The inspector meets with the plant manager to review the results of the survey. If any deficiencies exist, he explains what steps must be taken before approval can be granted and he consults with the plant personnel to obtain rapid corrections of the deficiencies. When corrections are made, the inspector makes another survey before granting "approved" status. Once approved, a plant does not automatically keep its status. A similar survey is required at least twice a year to maintain this eligibility; more frequent surveys—every 90 days—are made of plants manufacturing nonfat dry milk and other dried dairy products.

Inspection and Grading

The oldest of the services is inspection and grading. Official grading is recognized by dairy producers, processors, wholesalers, buyers, restaurant owners, and others as a vital part of orderly marketing.

U.S. grades assure a product's quality—and its wholesomeness. Grading stimulates manufacturers to produce uniformly high quality, stable products which will bring top prices. The manufacturer, in turn, encourages the producer to produce top quality milk and cream.

Grades are based on nationally uniform standards, developed by Dairy Division experts in cooperation with industry representatives. For this reason, U.S. grades do more than define levels of quality—they are also the language of the trade. And it is this common language which aids in the orderly marketing of dairy products.

Use of the grading service provides tangible benefits to processors whose raw material may be of satisfactory quality but whose finished product



Acceptance Service is available to mass buyers of food, such as restaurants, steamship and airline companies, State and local governments, and schools. To give the buyer exactly what he wants is the purpose of this service from AMS' Dairy Division.

doesn't meet the grade standards expected. Grading pinpoints the cause of quality problems. Official grading can be performed at manufacturing plants, receiving and shipping points, or import and export points.

Included in the broad range of inspection and grading is an "Acceptance Service" which is available to institutions such as schools, restaurants, steamship and airline companies, and State and local governments (for hospitals, homes-for-the-aged, and prisons).

To give the buyer the quality he wants is the purpose of the program. It works like this: The food buyer decides exactly what quality he wants and uses either existing specifications or specifications tailor-made for his specific needs. Then he selects a supplier or calls for bids from several suppliers for the qualities and quantities he wishes to buy, with the contract stating that all deliveries are to be examined by Dairy Division inspectors. The inspectors examine samples from each item. If an item meets contract specifications, the inspector stamps the packages with the official inspection stamp or grade

mark. He also issues certificates which show that the products examined comply with the contract specifications for grade, condition, weight, and any other factors specified.

In addition to providing assurance of quality, the Acceptance Service can save a buyer time and money. Time-wise, it makes daily trips to suppliers a thing of the past. And portion costs may go down because overstocking and spoilage are minimized. Savings also may come from using a uniform basis for establishing bids. Thus the nominal cost of the program is usually offset by savings.

Also under the inspection and grading program is the inspection of all dairy products offered for sale to the Federal government under the dairy price support program. This assures compliance with specifications in the purchase announcements and helps assure that the products will maintain their quality—all the way down to the people they benefit. The stocks of Government-owned dairy products are inspected periodically to make sure they have maintained their quality dur-

ing storage.

Laboratory Service

The third major program, laboratory service, consists of analytical and quality control tests, including all chemical and bacteriological determinations essential in evaluation of class, quality, condition, and keeping properties. Exacting laboratory tests assure a product's quality and wholesomeness. For example, assignment of a U.S. grade to nonfat dry milk requires seven laboratory tests and a flavor test.

To provide testing services, the Dairy Division maintains a laboratory in Chicago and also employs the services of two others.

In addition to their regular testing of products in connection with dairy grading programs, these laboratories test both dairy and non-dairy products for industry and other Federal agencies on a fee-for-service basis.

One example is a blended food product—a mixture of nonfat dry milk, corn meal, soyflour, and vitamins and minerals—which is distributed overseas

to help combat malnutrition.

They also test products for other divisions within AMS and for other Government agencies, when time or distance make this advantageous to the Government. The products tested range from dried and frozen eggs for the Poultry Division to dry cream substitute for the U.S. Veterans Administration. This means that the dairy technicians have the training and equipment to check almost any kind of food product.

Although most of the work is done for Government agencies, the laboratories will, on request, help any plant, industry, or private organization analyze its products. Often, these official tests are used by plant managers as checks on the accuracy of their own plants' tests.

This service is also used by firms such as hotels and restaurants wishing to check the quality of the products they buy. The lab technicians place emphasis on bacteriological testing for wholesomeness and keeping quality of the product. But, if applicable, checks are made on such basic factors as the

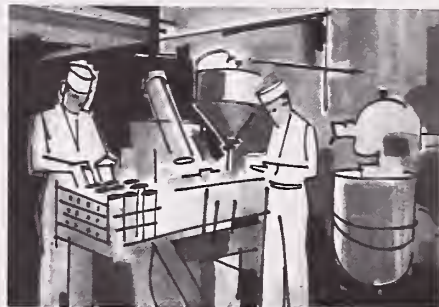
net weight—to make sure that the product weighs the amount stated on the label.

Inspectors assigned to plants using the resident grading and quality control service are given specialized training at the Dairy Division laboratory in Chicago. This laboratory also spot checks their work at the plant.

Resident Grading and Quality Control Service

The fourth major program is the resident grading and quality control service, available to approved plants. This service is a combination of the plant survey, inspection and grading, and laboratory programs; it provides for quality checks on incoming raw material, in-processing controls, checks on sanitation, and grading and certification of the finished product by an inspector stationed at the plant on a full-time basis.

To qualify for the program and contract with USDA for the services of one or more full-time Federal inspectors, the dairy plant must first be approved



Final test of quality of any product is its taste. Here, a plant quality control observer watches as dairy inspector tastes samples of products from his plant. Packaging techniques (bottom) used in filling whipped butter containers are checked to assure that sanitary procedures are followed. All phases of production of a dairy product are closely watched by an expertly trained USDA dairy inspector in the resident quality control program.

under the plant survey program. And the plant must have a USDA-approved laboratory, which the resident inspector uses for chemical and bacteriological testing of the raw ingredients and the finished product.

What does all of this mean for the plant? It means that each shipment of its products can be covered by an official certificate showing that the products meet a USDA grade or buyer's specification. Thus, the finished products can be officially identified with either a U.S. Grade or Quality Approved Shield on both the wholesale and retail level. And since grades point up a specific quality, firms—and consumers—can buy with confidence.

The resident inspector, who is trained in dairy and food technology, works closely with plant management, pointing up deficiencies as they arise and making routine checks on sanitation. The inspector's work protects the processor, wholesaler, retailer, and consumer because of checks at every step of production. The inspector checks, for example, the sanitation of processing equipment and the pasteurizing tem-

perature of milk or cream prior to its use in manufacturing.

Packaging, too, receives his careful attention. The packaging room, facilities, and equipment must be kept sanitary. The product must be packed in a container that will properly protect it, and the container must be properly sealed and handled.

PROGRAM REGULATIONS

The authority for Dairy Division standardization and inspection and grading services is the Agricultural Marketing Act of 1946. The bases for performing these services are set forth in the Regulations Governing Dairy Inspection and Grading Services, the General Specifications for Dairy Plants Approved for USDA Inspection and Grading Service, the grade standards and specifications for each product, other detailed instructions, and notices to inspectors.

The men who perform these services—the inspectors and graders—are experienced and well-trained. There are minimum standards for experience and

training set up by the Civil Service Commission. Many inspectors and graders are college graduates with majors in dairy manufacturing or food technology and have held responsible jobs in the dairy industry. In addition, periodic training sessions are held and on-the-job supervision is given.

The expert, impartial application of the regulations, specifications, and standards assures plant managers of top quality service. And it assures managers that their competitors using the service will have to meet the same standards, whether the competitors be in Minnesota, Missouri, or New York.

PRODUCTS WHICH CAN BE GRADED

What products can be inspected and graded? Almost all dairy products can be, but the service is used most widely for butter, Cheddar cheese, instant nonfat dry milk, and regular nonfat dry milk. Other cheeses, dry whey, dry butter milk, and dried and condensed milk are also inspected.

There are four grades for *butter*—

A well-equipped laboratory is the prerequisite for resident inspection program. Two AMS inspectors perform tests along with the plant's own quality control personnel.





U.S. Grades AA, A, B, and C. The ratings are assigned on the basis of flavor, aroma, texture, and spreadability. The quality of the milk from which the butter is made is also a determining factor in assigning the grades.

For *Cheddar* cheese, the same four grades are used, and, as with butter, all four grades may be used in the wholesale trade, but only the top grades are used at the retail level. To rate the top grade, the cheese must

have a consistently fine Cheddar flavor. In addition, there are grades for Swiss (*Emmentaler*) cheese, Colby, and Monterey (*Monterey Jack*).

If *instant nonfat dry milk* meets the exacting standards for quality and wholesomeness, it may carry the U.S. Extra Grade Shield. This means that laboratory tests and in-processing inspection show that it possesses a sweet and pleasing flavor, a natural color, and instant solubility. USDA inspectors also check the instant milk for other quality factors such as moisture, fat, bacteria, scorched particles, and acidity.

Dry buttermilk and *regular nonfat dry milk*, which are sold in bulk to producers of ice cream, bakery products, and some processed meat products, can be graded either U.S. Extra or U.S. Standard. The lower grade "Standard" may be the result of excess moisture or particles scorched from the drying process or certain other quality factors.

The grades of U.S. Premium, U.S. Extra, and U.S. Standard for *dry whole milk* are based chiefly on flavor, odor, and appearance. And like those for

other dairy products, grade requirements for dry whole milk also include a maximum bacteria content. Bacteria limits are designed to ensure a safe product that has good keeping quality.

Dry whey—a byproduct in the making of natural cheese—is tested for flavor, odor, appearance, amount of butterfat and moisture, and the degree of solubility. It must have a good, sweet taste to earn the U.S. Extra grade. Whey of this top quality is desired by manufacturers because it is used as an ingredient in process cheese products and other foods.

For *sour cream*, *cottage cheese*, *process cheese* or any other dairy product for which no U.S. grade standards have been established, there is a USDA program for official quality approval. Such products may earn the "Quality Approved" rating, which is based on a USDA inspection of the product and the plant where the product was made. The product must be wholesome and measure up to a specific level of quality to earn the rating. The "Quality Approved" shield may be used on retail packages.

WHERE TO WRITE

Further information about these services can be obtained from:

Dairy Division
Agricultural Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

. . . or from the Dairy Division's regional offices at:

Room 448
Federal Building
110 South Fourth Street
Minneapolis, Minn. 55401

Room 726
Midtown Plaza Building
700 East Water Street
Syracuse, N.Y. 13210

Room 664
U.S. Custom House
610 South Canal Street
Chicago, Ill. 60607

Room 754
U.S. Appraisers Building
630 Sansome Street
San Francisco, Calif. 94111

. . . or from the Dairy Division's laboratory at:

Room 674
U.S. Custom House
610 South Canal Street
Chicago, Ill. 60607

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